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10/062,487	02/05/2002	Teruo Kubota	1422-0516P	3550

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EXAMINER

DOUYON, LORNA M

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/062,487

Applicant(s)

KUBOTA ET AL.

Examiner

Lorna M. Douyon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/355,032.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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### *Abstract*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of **50 to 150 words**. It is important that the abstract **not exceed 150 words in length** since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

It is suggested that Applicant limit the abstract within the range of 50 to 150 words.

### *Claim Objections*

2. Claims 1, 2, 4, 5, 11 and 12 are objected to because of the following informalities: In the phrase "wherein drying conditions for the remaining insolubles are keeping at a temperature of 105°C..." at the end of each claim, the underlined term should be replaced with "kept".

Appropriate correction is required.

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***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Evaluations of the level of ordinary skill in the art require consideration of such factors as various prior art approaches, types of problems encountered in the art, rapidity with which innovations are made, sophistication of technology involved, educational background of those actively working in the field, commercial success, and failure of others.

The “person having ordinary skill” in this art has the capability of understanding the scientific and engineering principles applicable to the claimed invention. The evidence of record including the references and/or admissions are considered to reasonably reflect this level of skill.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(a) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-8, 10-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wilms et al. (US Patent No. 5,139,693), hereinafter “Wilms”.

Wilms teaches a granular mixture produced by spray drying of (a) 45 to 74% by weight zeolite, (b) 1 to 6% by weight of a water soluble soap, (c) 1 to 12% by weight homopolymers or copolymers of acrylic acid, methacrylic acid or maleic acid or water-soluble salts thereof, expressed as sodium salt, (d) 0 to 25% by weight sodium sulfate, (e) 0 to 5% by weight

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surfactants, (f) 10 to 22% by weight water, has an average particle size of 0.2 to 1.2 mm and an apparent density of 350 to 680 g/l (see abstract). In Example 5, Wilms exemplifies granules containing 60.0% zeolite, 5.2% acrylic acid/maleic acid copolymer (Na salt), 13.2% sodium sulfate and having a bulk density of 590 g/l and particle size distribution as those recited (see col. 9, line 55 to col. 10, line 17). Even though Wilms does not specifically disclose a detergent particle capable of releasing a bubble from an inner portion of the detergent particle in a process of dissolving the detergent particle in water, the dissolution rate of 90% or 82% or more, the localized structure and pore size, it would be inherent for the detergent granules of Wilms to exhibit the same characteristics because same porous detergent granules having the same bulk density and particle size have been utilized. Hence, Wilms anticipates the claims.

7. Claims 1, 2, 8, 10-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gangwisch et al. (US Patent No. 4,406,808), hereinafter "Gangwisch".

Gangwisch teaches a method of manufacturing a free-flowing, phosphate free, particularly heavy duty laundry detergent of bulk density greater than 0.6 g/ml which comprises spray-drying an aqueous mixture of ion exchanging zeolite, sodium carbonate and water to a moisture content in the range of about 2 to 16% to form spray dried beads and mixing with said beads hydrous sodium silicate in particulate form and nonionic detergent in liquid form per part of zeolite so that such detergent is absorbed into the beads (see abstract; col. 2, lines 32-44). Gangwisch also

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teaches a detergent product which comprises beads of zeolite and sodium carbonate in the proportion of 1:0.1-1.5, having mixed with them from 0.1 to 0.3 part of hydrous sodium silicate in particulate form and 0.2 to 1.0 part of nonionic detergent per part of zeolite, which nonionic detergent is absorbed into the spray dried beads and may hold the hydrous silicate in or on the beads (see col. 2, lines 44-53). Percentagewise, such constituents plus water are 25 to 70% of synthetic zeolite, 8 to 35% of sodium carbonate, 5 to 15% of hydrous sodium silicate, 15 to 25% of nonionic detergent, 2 to 15% of water and 0 to 10% of adjuvants (see col. 8, lines 54-59). Gangwisch also teaches that the detergent product will usually be in free flowing rounded bead form such as that of other spray dried products, although the bead interior may be virtually honeycombed (see col. 9, lines 18-22). Gangwisch also teaches that the particle size of the beads will normally be in the range of No's. 6 to 160 sieve, preferably No's. 8 to 100 sieve (equivalent to 2.36 mm to 150  $\mu$ m) (see col. 9, lines 22-26). In Example 1, Gangwisch exemplifies a particulate detergent composition having a bulk density of 0.79 g/ml (equivalent to 790 g/l) which are of sizes in the range of 8 to 100 mesh, U.S. Sieve Series, and which is useful for both hot and cold water washing of both synthetic and natural fibers (see col. 12, line 47 to col. 13, line 14). Even though Gangwisch does not specifically disclose a detergent particle capable of releasing a bubble from an inner portion of the detergent particle in a process of dissolving the detergent particle in water, and the dissolution rate of 90% or 82% or more, it would be inherent for the detergent particulate of Gangwisch to exhibit the same characteristics because same porous

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particulate detergent having the same bulk density and particle size have been utilized. Hence, Gangwisch anticipates the claims.

8. Claims 1-2, 11-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mazzola (US Patent No. 5,443,751).

Mazzola teaches a sodium carbonate-based laundry detergent powder which can be utilized in cold water fabric laundering with a minimized remainder of undissolved detergent residue in the wash water (see abstract). Mazzola illustrates reduction of cold water residue in fabric washing with a powder detergent comprising sodium carbonate, sodium Neodol 25-3 sulfate, Neodol 25-3, sodium polyacrylate wherein the detergent granules have an average diameter of 500 microns and bulk density of 912 grams/liter (see Example I under col. 4, lines 15-58). Even though Mazzola does not explicitly disclose the dissolution rate of the detergent particles which is 90%, or 82%, or more under the conditions as those recited, it would be inherent for the detergent granules of Mazzola to have a dissolution rate as those recited because same composition having the same ingredients, particle size and bulk density have been utilized. The detergent granules of Mazzola should also be capable of releasing a bubble having the size as those recited because of the same reasons as above. Hence, Mazzola anticipates the claims.



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9. Claims 1-8, 10-12 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ishikawa et al. (JP 09013097), hereinafter "Ishikawa".

Ishikawa teaches detergent granules having a bulk density of 750 to 900 g/l and an average particle diameter of 500 microns and comprising sodium carbonate, surfactants, zeolite and poly(sodium acrylate) (see abstract). Even though Ishikawa does not explicitly disclose the dissolution rate of the detergent particles which is 90%, or 82%, or more under the conditions as those recited, it would be inherent for the detergent granules of Ishikawa to have a dissolution rate as those recited because same composition having the same ingredients, particle size and bulk density have been utilized. The detergent granules of Ishikawa should also be capable of releasing a bubble having the size as those recited because of the same reasons as above. Hence, Ishikawa anticipates the claims.

10. Claims 1-12 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamaguchi et al. (WO 97/33970), hereinafter "Yamaguchi".

Yamaguchi teaches anionic surfactant granules having a bulk density of 0.76 g/cm<sup>3</sup> (760 g/l) and an average particle size of 438  $\mu$ m, prepared by spray drying a slurry comprising anionic surfactant, 2.0 parts by weight of an acrylic acid-maleic acid copolymer (about 4 wt%), 10.0 parts by weight of a zeolite (about 20 wt%) and 5.0 parts by weight of sodium carbonate (about 10

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wt%) wherein 50.1 parts by weight spray-dried granules are sprayed with 0.5 parts by weight of polyoxyethylene alkyl ether (see Example 1). Even though Yamaguchi does not explicitly disclose the dissolution rate of the detergent composition, the pore size of the detergent particles or the localized structure as those recited, it would be inherent for the granules of Yamaguchi to exhibit the same characteristics because same detergent composition having the same bulk density and particle size have been utilized. Hence, Yamaguchi anticipates the claims.

11. Claims 3-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gangwisch as applied to the above claims in view of Eertink et al. (US Patent No. 4,988,454), hereinafter "Eertink".

Gangwisch teaches the features as described above. In addition, Gangwisch teaches that adjuvants include chelating agents and soil anti-redeposition agents (see col. 8, lines 39-46). Gangwisch, however, fails to disclose a water-soluble polymer as the specific adjuvant.

Eertink teaches a similar low or zero-phosphorus spray dried detergent powders having a bulk density from 400 to 1100 g/liter which contains zeolite and a polymeric powder structurant like acrylic acid/malic anhydride copolymers which may also provide antiredeposition benefits (see abstract; col. 2, lines 15-31; col. 3, lines 45-64).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a polymeric powder structurant to the composition of Gangwisch because

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Gangwisch specifically discloses incorporating adjuvants such an antiredeposition agent and Eertink teaches such a polymeric powder structurant as an antiredeposition agent.

12. Claims 1-6, 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grecsek (US Patent No. 5,024,778) or Grecsek (US Patent No. 5,080,820).

Grecsek '778 or Grecsek '820 teaches a detergent composition having a bulk density of 0.5 to 0.6 g/ml (500 to 600 g/l), made from spray dried beads by spraying onto the surface of such tumbling base beads a normally waxy nonionic detergent in liquid state, the quantity sprayed is such as to result in a final product containing about 15% of nonionic detergent, wherein the spray dried beads having a particle size range between No. 10 and 60, US Sieve Series) (equivalent to 2.0 mm to 250  $\mu$ m) are prepared by spray drying a crutcher mix (solids content of about 55% in an aqueous medium) comprising 22 parts hydrated zeolite 4A, 0.1 part of sodium polyacrylate and 8.3 parts sodium carbonate (see Example 1 under cols. 11-12 in each reference). Grecsek '778 or Grecsek '820, also teaches that the sodium polyacrylate is from 0.05% to 1% (see Grecsek '778, col. 9, line 23; Grecsek '820, col. 9, lines 40-41). Grecsek '778 or Grecsek '820, however, fails to disclose the dissolution rate of the detergent composition, the pore size of the detergent particles or the localized structure as those recited.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to reasonably expect the dissolution rate of the detergent composition, the pore size of the

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detergent particles or the localized structure to be within those recited because same bulk density, overlapping particle sizes and same process of preparation have been utilized.

### ***Double Patenting***

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1-12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-38 of U.S. Patent No. 6,376,453. Although the

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conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to similar detergent particles or detergent composition differing only in that the amount of the surfactant supported by the base particles in the patent is specifically disclosed whereas in the present claims, the amount of said surfactant is not disclosed.

15. Claims 1-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the claims of copending Application No. 09/594,025. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are drawn to the same detergent particles differing only in that the copending application is a solid-shaped detergent comprising the same detergent particles.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lorna M. Douyon whose telephone number is (703) 305-3773. The examiner can normally be reached on Mondays-Fridays from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta, can be reached on (703) 308-4708. The fax phone number for this Technology Center is:

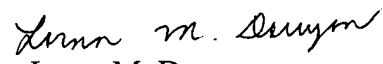
(703) 305-3599 - for Official After Final faxes

(703) 305-7718 - for all other Official faxes.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center receptionist whose telephone number is (703) 308-0661.

June 16, 2003

  
Lorna M. Douyon  
Primary Examiner  
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